UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/891,336	06/26/2001	David A. Babbitt	AUS9-2000-0836-US1	2233

7590   06/13/2005

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EXAMINER
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ART UNIT	PAPER NUMBER
2144	

DATE MAILED: 06/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/891,336	BABBITT ET AL.
	Examiner	Art Unit
	Tam (Jenny) Phan	2144

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _24 January 2005_.

2a)☒ This action is **FINAL.**   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-20_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-20_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on _26 June 2001_ is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This application has been examined. Claims 1-20 are presented for examination.

Priority

2.   No priority claims have been made.

3.   The effective filing date for the subject matter defined in the pending claims in

this application is 06/26/2001.

Claim Objections

4.   Claim 6 is objected to because of the following informalities: "one of the plurality

of boot server negotiation servers" should read "one of the plurality of boot ~~server~~

negotiation servers". Appropriate correction is required.

Claim Rejections - 35 USC § 103

5.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

6.   Claims 1-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Hayden (U.S. Patent Number 6,018,771) view of Paul (U.S. Patent Number 6,687,817),

and further in view of Klimenko (U.S. Patent Number 5,974,547).

7.   Regarding claim 1, Hayden disclosed a method for providing multicast

information to a client on a computer network, comprising selecting a multicast address

at which the information will be multicast (column 6 lines 38-48); determining whether

the selected multicast address is being used to multicast information is in conflicts over

transmission addresses (column 6 line 62-column 7 line 19); and transmitting the selected multicast address to the client if the selected multicast address is not being used (column 8 lines 27-39).

8.   Hayden taught the invention substantially as claimed. However, Hayden did not expressly teach multicasting boot information to a client for bootstrapping process.

9.   Hayden suggested exploration of art and/or provided a reason to modify the method for providing multicast information to a client on a computer network with additional feature of providing information such as boot information to a client on a computer network (column 7 lines 54-57).

10.   Paul disclosed a method of providing boot information from a file server to a client on a computer network for initiating boot sequence on a client (Abstract, Figures 3, 5, 7, column 3 lines 30-65).

11.   It would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify the method of Hayden with the teachings of Paul to include multicasting boot information in order to remotely configure a client via network (Paul, column 2 lines 33-46) since network scalability and efficiency are important (Paul, column 1 lines 32-39). In addition, multicasting boot information over the network for bootstrapping process is well known in the art.

12.   The combination of Hayden and Paul taught the invention substantially as claimed, however, the combination of Hayden and Paul did not teach a method having step of sharing information about the selected multicast address between the file server and a boot negotiation server, wherein the boot negotiation server and the file server are separate computer devices.

13.   Paul suggested exploration of art and/or provided a reason to modify the method

for providing boot information from a file server to a client on a computer network with

additional features such as having the file server and a boot negotiation server situated

on separate computers (column 5 lines 50-67, column 6 lines 16-28).

14.   Klimenko disclosed a techniques having a step of sharing information about the

selected multicast address between the file server [RATFTP server] and a boot

negotiation server [Boot P server], wherein the boot negotiation server and the file

server are separate computer devices (Figure 2A, Figure 4A signs 50 & 410, column 9

lines 42-55, column 9 line 66-column 10 line 15, column 11 lines 66-column 12 lines

21).

15.   It would have been obvious to one of ordinary skill in the art at the time of the

invention was made to modify the combined method of Hayden and Paul with the

teachings of Klimenko to include having the file server and a boot negotiation server

situated on separate computer devices in order to use in a client-server environment for

reliably booting an operating system (OS) (Klimenko, column 3 lines 24-28) since during

booting of the client OS, rather than directing each request for a specific sector of a

stored file from the local hard disk or the boot negotiation server, the request can be

fulfilled from a separate file server (column 3 line 59-column 4 line 7) which providing

seamless and continuous client hard disk emulation throughout the entire boot process

(column 6 lines 52-60).

16.   Regarding claim 2, Hayden disclosed a method wherein determining whether the

selected multicast address is being used to multicast information different from the boot

information includes transmitting a conflict query (column 4 lines 26-45, column 7 lines 11-19).

17.   Regarding claim 3, Paul disclosed a method wherein a plurality of boot server processes is present on the computer network (Figures 4-7, column 3 lines 30-46).

18.   Regarding claim 4, Klimenko disclosed a method further comprising plural clients, plural boot negotiation servers and plural file servers, wherein the plural boot negotiation servers and the plural file servers shares information about selected multicast addresses for each client (column 7 lines 42-column 8 line 12, column 10 lines 30-49).

19.   Regarding claim 5, Paul disclosed a method further comprising: using one of the plurality of boot servers to notify at least one file server that at least one client will be making a request to at least one file server; and using the plural file servers to transmit acknowledgements that the file servers are ready for the clients to make requests (Figures 4-7, column 2 lines 33-46, column 3 lines 30-55).

20.   Regarding claim 6, Paul disclosed a method further comprising configuring the file server for requests from the clients after receiving notification from the one of the plurality of boot negotiation servers and before sending the acknowledgements (Figures 4-7, column 2 lines 33-46, column 3 lines 30-55).

21.   Regarding claim 7, Hayden disclosed a method wherein determining whether the selected multicast address is being used to multicast information different from the boot information includes transmitting a conflict query from a querying boot server to a remainder of the plurality of boot servers (column 6 line 62-column 7 line 34).

22.   Regarding claim 8, Hayden disclosed a method further comprising selecting a

different multicast address if the selected multicast address is being used to multicast

information different from the boot information (column 6 line 62-column 7 line 34).

23.   Regarding claim 9, Hayden disclosed a method wherein an address conflict is

found if one of the remainder of the plurality of boot servers sends acknowledgements

to the conflict query (Figure 6, column 6 line 62-column 7 line 34).

24.   Regarding claim 10, Hayden disclosed a method further comprising marking the

selected multicast address as being used and storing the marked selected multicast

address in a database (column 6 line 62-column 7 line 34).

25.   Regarding claim 11, Paul disclosed a method further comprising using the client

to listen at the selected multicast address for the boot information to be multicast

(Figures 4-7, column 2 lines 33-46).

26.   Regarding claim 12, Paul disclosed a method wherein the client listens at the

selected multicast address for a period of time (column 3 lines 19-28, lines 47-65).

27.   Regarding claim 13, Paul disclosed a method further comprising: receiving no

response during the period of time; and using the client to send a request to a file server

process to transmit the boot information at the selected multicast address (column 3

lines 30-46).

28.   Regarding claim 14, Paul disclosed a method further comprising using the client

to receive the boot information from the file server that is multicasting the boot

information at the selected multicast address (column 3 lines 30-46).

29.   Regarding claim 15, Hayden, Paul, and Klimenko combined disclose a method

for resolving address conflicts on a computer network prior to booting a client,

comprising: selecting, by a file server, a first multicast address at which boot information

will be multicast from the file server to the client; using a first boot negotiation server on

the network to determine whether other boot negotiation servers on the network are

using the first multicast address; sending, by the file server, the first multicast address to

the client if the first multicast address is not being used by the other boot negotiation

servers; selecting, by the file server, a second multicast address if the first multicast

address is being used by the other boot negotiation servers (Hayden, Figure 6, column

6 lines 38-48, column 6 line 62-column 7 line 34, column 8 lines 27-40; Paul, Figures 4-

7, column 2 lines 33-46, column 3 lines 30-55); and sharing information about the

selected multicast address between the file server and the boot negotiation server,

wherein the boot negotiation server and the file server are separate computer devices

(Klimenko, Figure 2A, Figure 4A signs 50 & 410, column 9 lines 42-55, column 9 line

66-column 10 line 15, column 11 lines 66-column 12 lines 21).

30.   Regarding claim 16, Paul disclosed a method further comprising using the client

to listen at the first multicast address to receive boot information (column 3 lines 30-55).

31.   Regarding claim 17, Hayden disclosed a method wherein using the first boot

negotiation server on the network to determine whether other boot negotiation servers

on the network are using the first multicast address further comprises causing the first

negotiation boot server to transmit a conflict query to the other boot negotiation servers

over the computer network (column 6 line 62-column 7 line 34).

32.   Regarding claim 18, Hayden, Paul, and Klimenko disclosed a pre-boot address

management method for configuring a file server process on a computer network to

send boot information to a client, comprising: selecting, by a file server, a first multicast

address at which boot information will be multicast from the file server to the client;

sharing information about the first multicast address between the file server and the

boot negotiation server; using a boot negotiation server to send a query packet to other

boot negotiation servers on the computer network to determine whether the first

multicast address is being used to provide information different from the boot

information; and using the first boot negotiation server to notify the file server that the

client will be requesting boot information at the first multicast address if the first

multicast address is not being used to provide information different from the boot

information (Hayden, Figure 6, column 6 lines 38-48, column 6 line 62-column 7 line 34,

column 8 lines 27-40; Paul, Figures 4-7, column 2 lines 33-46, column 3 lines 30-55,

column 6 lines 31-46); wherein the first boot server negotiation and the file server

operates on separate machines (Klimenko, Figure 2A, Figure 4A signs 50 & 410,

column 9 lines 42-55, column 9 line 66-column 10 line 15, column 11 lines 66-column

12 lines 21).

33.   Regarding claim 19, Hayden disclosed a pre-boot address management method

wherein a response to the query packet is received by the first boot negotiation server if

the first multicast address is being used to provide information different from the boot

information (column 6 line 62-column 7 line 34, column 8 lines 27-40).

34.   Regarding claim 20, Hayden disclosed a pre-boot address management method

wherein the first boot negotiation server selects a different multicast address if the first

multicast address is being used to provide information different from the boot

information (column 6 line 62-column 7 line 34).

35.   Since all the limitations of the claimed invention were disclosed by the

combination of Hayden, Paul, and Klimenko, claims 1-20 are rejected.

Response to Arguments

36.   Applicant's arguments with respect to the pending claims have been considered

but are moot in view of the new ground(s) of rejection.

37.   As the rejection reads, Examiner asserts that the combination of these teachings

render the claimed invention obvious.

Conclusion

38.   Applicant's amendment necessitated the new ground(s) of rejection presented in

this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37

CFR 1.136(a).   \

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the date of this final action.

39.   The prior art made of record and not relied upon is considered pertinent to

applicant's disclosure. Refer to the enclosed PTO-892 for details.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tam (Jenny) Phan whose telephone number is (571) 272-3930. The examiner can normally be reached on M-F 9:00-5:00.
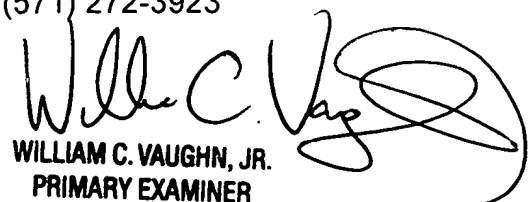
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Wiley can be reached on (571) 272-3923. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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PRIMARY EXAMINER

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June 6, 2005